



U. S. Department of Justice

BUREAU OF ALCOHOL, TOBACCO, FIREARMS AND EXPLOSIVES  
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## Laboratory Report

ANAB ISO/IEC 17025:2017 Accredited  
Forensic Testing Laboratory

Special Agent Jason Brown  
Bureau of Alcohol, Tobacco, Firearms and Explosives  
151 Patton Avenue  
Suite 255  
Asheville, NC 28801

Date of Report: 10/3/2022  
Case Number: 2021-A-000235  
Submission(s): 2  
Reference: 763056-21-0049  
Title: Grandfather Mountain  
Highland Games, Inc.  
Type of Exam: Explosives

The following exhibit was received by the laboratory on September 8, 2022.

### EXHIBIT

#### Lab # – (Agency #)

18 - (29) Disassembled firework and powder

### RESULTS OF EXAMINATION

This report refers to the exhibit by Lab Number. The following result only applies to the item tested.

Exhibit 18 contained a disassembled commercial pyrotechnic that contained two functional pyrotechnic fuses. One of the fuses protruded from the lift charge area of the tube and extended out the top of the device. The second fuse was the delay fuse between the lift charge and main charge. A glass vial labeled "lift charge" contained black powder. A glass vial labeled "main charge" contained a mixture of a powdery perchlorate explosive composition (example: flash powder) and a chunky pyrotechnic composition.

### METHODS

#### Lab # Analysis

Lab #	Analysis
18	Ignition susceptibility test, Scanning electron microscopy-energy dispersive spectroscopy, Visual examination, X-ray diffraction

### DISPOSITION OF EVIDENCE

The excess powder in Exhibit 18 will be destroyed in the laboratory. The remaining evidence will be forwarded to the Explosives Enforcement Branch.

Examiner:

Mathew Simon  
Forensic Chemist

Technical Reviewer:

Brittany Crane-Calhoun  
Forensic Chemist

Administrative Reviewer:

Robert Reed  
Section Chief

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